



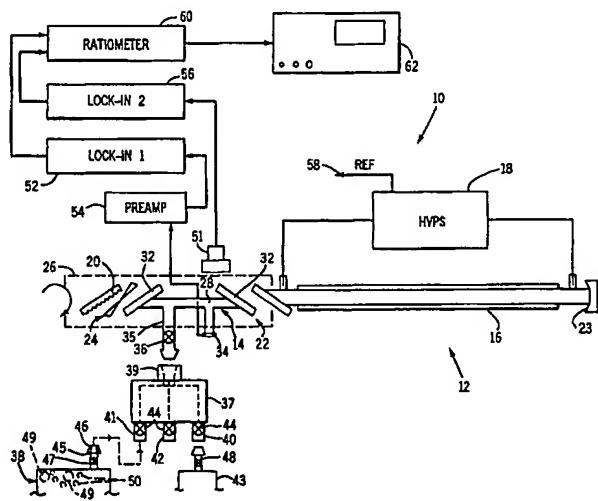
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(54) Title: SYSTEM AND METHOD FOR DETECTION OF A BIOLOGICAL CONDITION



**(57) Abstract**

A system (10) and method that allows for early detection of biological conditions, such as disease, through analysis of appropriate gaseous samples. The system (10) and method are particularly amenable to the early screening for diseases, such as lung cancer, through the detection of specific biomarkers when present in exhaled breath from an individual or gaseous samples taken proximate cell cultures, pathology specimens, food specimens, etc. The preferred system implements a carbon monoxide laser (16) that generates radiation and directs it through a photoacoustic cell (14). The radiation is of a type that undergoes a characteristic intense absorption by the biomarker, if present, in the gaseous sample. The absorption of the radiation is detected acoustically.

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